**Grade 2 – Unit 5 – Tic Tac Toe Project Board**

**3D and 2D Shapes**

*Directions: Choose three projects in a row for your first three, but you may do more if time permits! Work independently on the projects in class only –not at home. Challenge yourself with these projects and …have fun!*

|  |  |  |
| --- | --- | --- |
| Create an attribute maze using shape, color, and size. Divide a large sheet of white construction paper into a 6x6 or 8x8 grid (you can fold the paper or use a ruler to make your lines straight). In each box of the grid, draw a shape and color it. To create a pathway on your maze, the shapes next to each other on the pathway must be connected by 2 similar attributes. | Complete page 130 in your journal, then look through our class magazines to find a picture that interests you and has symmetry to it (ex: face, toys, etc). Cut out your picture in half along one line of symmetry. Past one side of the picture on large white construction paper, and then draw the side of your picture that is missing. | Create a Venn diagram that compares two 2D shapes or two 3D shapes. Choose the shapes you will use. Then write their names and draw a picture to match on index cards. Using string, create a Venn diagram in your workspace. On each card, write what makes them different from each other and place them in the correct space on the diagram. Finally, transfer this information onto the Venn diagram provided by your teacher. |
| Using your template, create an illustration that connects to our current science or social studies unit. Color your picture and label the different 2D shapes you used. | Go on a 3D scavenger hunt! Using journal page 126 as a guide, search the classroom and school for other objects that fit that shape. You will be sent out of the classroom on your hunt with a partner and will be expected to work together as a team. Each time an object is discovered, you will record its name and location on a piece of paper. | Perform a 5-10 minute presentation of polygons using rubberbands and a geoboard. Begin by reviewing the definition of a polygon. Call on volunteers to assist with this definition. Then create each of the following polygons on a geoboard, reviewing their specific characteristics as you do (triangles, quadrangles or quadrilaterals, pentagons, hexagons, heptagons and octagons). |
| Build 4 pyramids using straws, twist ties, and Math Masters page 94. | Make a polygon poster to be displayed in class during our unit. On your poster, include examples of triangles, quadrangles or quadrilaterals, pentagons, hexagons, heptagons and octagons. Include an illustration and the number of sides that each shape has. Also choose one shape on your poster to label with the following terms: line segment, vertex, and angle. Make the poster colorful! | Using journal page 118, design 9 of your own secret codes for drawing shapes using line segments and points. Be sure to include letter names for each point and clear directions for each code. Do not fill in the line segments. Your work will be used as a follow up to our unit lesson on drawing line segments with a straightedge. |

Materials Needed:

-poster paper

-index cards

-string

-old magazines

-Math Masters page 94.

-geoboards and rubberbands

-straws and twist ties